

=> d his

(FILE 'HOME' ENTERED AT 14:40:18 ON 23 JUL 2003)

FILE 'REGISTRY' ENTERED AT 14:40:31 ON 23 JUL 2003

L1 SCREEN 970 AND 1015 AND 2067  
L2 STRUCTURE UPLOADED  
L3 QUE L2 AND L1  
L4 50 S L3 SSS SAM  
L5 SCREEN 965 AND 970 AND 1006 AND 2067  
L6 SCREEN 1821 OR 1822 OR 1823 OR 1824  
L7 STRUCTURE UPLOADED  
L8 QUE L7 AND L5 AND L6  
L9 0 S L8 SSS SAM

*STN Search*

FILE 'HOME' ENTERED AT 14:42:09 ON 23 JUL 2003

FILE 'REGISTRY' ENTERED AT 14:44:38 ON 23 JUL 2003

L10 SCREEN 963 AND 970 AND 1006 AND 2067  
L11 STRUCTURE UPLOADED  
L12 QUE L11 AND L10  
L13 15 S L12 SSS SAM

FILE 'CAPLUS, HCAPLUS, USPATFULL, USPAT2' ENTERED AT 14:45:14 ON 23 JUL 2003

L14 150 S L4  
L15 69 S L13  
L16 0 S L14 AND L15  
L17 0 S L14 AND L15

=> s l15 AND (HYDROXYSTYRENE)

L18 6 L15 AND (HYDROXYSTYRENE)

=> DUPLICATES REMOVE L18

DUPLICATE PREFERENCE IS 'CAPLUS, HCAPLUS, USPATFULL, USPAT2'

KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):N

PROCESSING COMPLETED FOR L18

L19 3 DUPLICATE REMOVE L18 (3 DUPLICATES REMOVED)

=> D L19 1-3 IBIB HITSTR ABS

L19 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2003:334607 CAPLUS

DOCUMENT NUMBER: 138:346488

TITLE: Pattern formation method

INVENTOR(S): Endo, Masayuki; Sasago, Masaru

PATENT ASSIGNEE(S): Matsushita Electric Industrial Co., Ltd., Japan

SOURCE: U.S. Pat. Appl. Publ., 12 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

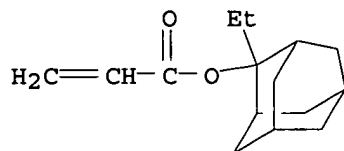
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003082926	A1	20030501	US 2002-279070	20021024
JP 2003140360	A2	20030514	JP 2001-334168	20011031
PRIORITY APPLN. INFO.: IT 518027-86-6			JP 2001-334168 A	20011031

RL: TEM (Technical or engineered material use); USES (Uses)  
(pattern formation method contg.)

RN 518027-86-6 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, tetrahydro-2-oxo-3-furanyl ester, polymer  
 with 2-ethyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl 2-propenoate (9CI) (CA INDEX  
 NAME)

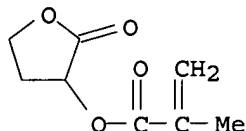
CM 1

CRN 303186-14-3  
 CMF C15 H22 O2



CM 2

CRN 195000-66-9  
 CMF C8 H10 O4



AB A resist film is formed from a chem. amplified resist material including a base polymer having a protecting group released by a function of an acid, an acrylic compd. and an acid generator that generates an acid when irradiated with light. The resist film is selectively irradiated with exposing light for pattern exposure, and is developed after the pattern exposure so as to form a resist pattern having a hole or groove opening. The size of the opening is reduced by irradiating the resist pattern with light with annealing.

L19 ANSWER 2 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2003:23576 USPATFULL  
 TITLE: Positive photosensitive composition  
 INVENTOR(S): Kodama, Kunihiko, Shizuoka, JAPAN  
 Sato, Kenichiro, Shizuoka, JAPAN  
 PATENT ASSIGNEE(S): FUJI PHOTO FILM CO., LTD. (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003017415	A1	20030123
APPLICATION INFO.:	US 2002-79414	A1	20020222 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2001-48602	20010223
	JP 2001-48783	20010223
	JP 2001-48784	20010223
	JP 2001-48880	20010223
	JP 2001-157366	20010525
	JP 2001-157367	20010525

DOCUMENT TYPE: Utility  
 FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W.,  
WASHINGTON, DC, 20037

NUMBER OF CLAIMS: 19

EXEMPLARY CLAIM: 1

LINE COUNT: 3838

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 454470-90-7P

(storage-stable chem. amplified UV pos. photoresists with good  
post-exposure stability for halftone exposure)

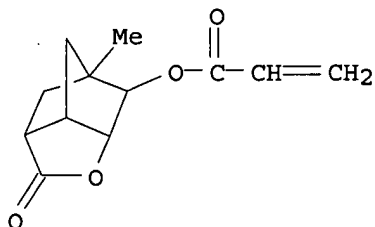
RN 454470-90-7 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester,  
polymer with bicyclo[2.2.1]hept-2-ene, 2,5-furandione,  
hexahydro-5-methyl-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl  
2-propenoate, hexahydro-6-methyl-2-oxo-3,5-methano-2H-cyclopenta[b]furan-  
6-yl 2-propenoate and hexahydro-6a-methyl-2-oxo-3,5-methano-2H-  
cyclopenta[b]furan-6-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 392309-90-9

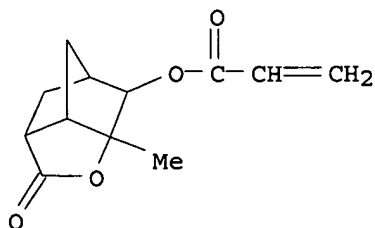
CMF C12 H14 O4



CM 2

CRN 392309-89-6

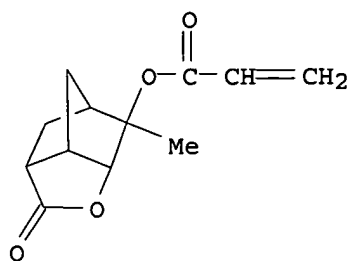
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CM 3

CRN 392309-87-4

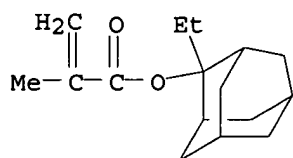
CMF C12 H14 O4



CM 4

CRN 209982-56-9

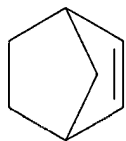
CMF C16 H24 O2



CM 5

CRN 498-66-8

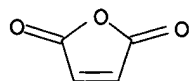
CMF C7 H10



CM 6

CRN 108-31-6

CMF C4 H2 O3



AB A positive photosensitive composition comprises: (A) an acid generator capable of generating an acid upon irradiation with one of an actinic ray and a radiation; and (B) a resin having a monocyclic or polycyclic alicyclic hydrocarbon structure and capable of decomposing by the action of an acid to increase the solubility in an alkali developer, wherein the acid generator (A) comprises at least two compounds of a sulfonium salt compound not having an aromatic ring, a triarylsulfonium salt compound, and a compound having a phenacylsulfonium salt structure.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:266409 USPATFULL  
 TITLE: Lactone ring-containing (meth)acrylate and polymer thereof for photoresist composition  
 INVENTOR(S): Watanabe, Takeru, Nakakubiki-gun, JAPAN  
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Tokyo, JAPAN (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002147291	A1	20021010
	US 6517994	B2	20030211
APPLICATION INFO.:	US 2002-106459	A1	20020327 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2001-111616	20010410
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
LINE COUNT:	685	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 468730-93-0P

(photoresist component; lactone ring-contg. (meth)acrylate and polymer thereof for photoresist compn.)

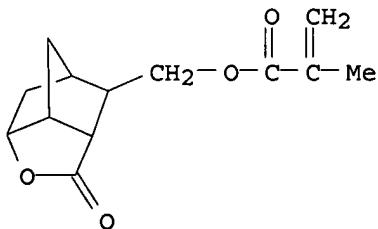
RN 468730-93-0 USPATFULL

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester, polymer with (hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-7-yl)methyl 2-methyl-2-propenoate and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 468730-90-7

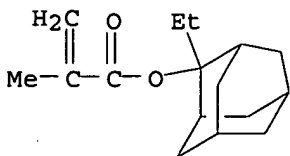
CMF C13 H16 O4



CM 2

CRN 209982-56-9

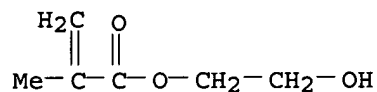
CMF C16 H24 O2



CM 3

CRN 868-77-9

CMF C6 H10 O3



AB The invention discloses a novel polymerizable (meth)acrylate ester compound having a lactone ring structure represented by the general formula ##STR1##

in which R<sup>sup.1</sup> is a hydrogen atom or a methyl group. A synthetic route for the preparation of this (meth)acrylate ester compound is described. This monomeric compound can readily be polymerized into a (co)polymer which is useful as a base resinous ingredient in a chemically amplified photoresist composition having advantages in respects of high transparency to short-wavelength ultraviolet light for patterning exposure and excellent resistance against dry etching in addition to the high sensitivity, fine pattern resolution and excellent adhesion to the substrate surface.

CA

## Patent Assignment Abstract of Title

### Total Assignments: 1

**Application #:** 10233519 **Filing Dt:** 09/04/2002 **Patent #:** NONE **Issue Dt:**  
**PCT #:** NONE **Publication #:** 20030114589 **Pub Dt:** 06/19/2003  
**Inventors:** Masumi Suetsugu, Airi Yamada, Yasunori Uetani  
**Title:** Chemical amplification type positive resist composition

### Assignment: 1

**Reel/Frame:** 013260/0148 **Received:** 09/10/2002 **Recorded:** 09/04/2002 **Mailed:** 11/22/2002 **Pages:** 3

**Conveyance:** ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

**Assignors:** SUETSUGU, MASUMI **Exec Dt:** 08/23/2002  
YAMADA, AIRI **Exec Dt:** 08/23/2002  
UETANI, YASUNORI **Exec Dt:** 08/23/2002

**Assignee:** SUMITOMO CHEMICAL COMPANY, LIMITED  
 5-33, KITAHAMA 4-CHOME, CHUO-KU  
 OSAKA, JAPAN

**Correspondent:** BIRCH, STEWART, KOLASCH & BIRCH LLP  
 ANDREW D. MEIKLE  
 P.O. BOX 747  
 FALLS CHURCH, VA 22040-0747

Search Results as of: 7/23/2003 5:57:08 P.M.

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 Web interface last modified: Oct. 5, 2002

## Patent Assignment Abstract f Title

### Total Assignments: 1

**Application #:** 10254598 **Filing Dt:** 09/26/2002 **Patent #:** NONE **Issue Dt:**  
**PCT #:** NONE **Publication #:** 20030099900 **Pub Dt:** 05/29/2003

**Inventors:** Airi Yamada, Masumi Suetsugu, Yasunori Uetani

**Title:** Chemical amplification type positive resist composition

### Assignment: 1

**Reel/Frame:** 013331/0470 **Received:** 10/02/2002 **Recorded:** 09/26/2002 **Mailed:** 01/06/2003 **Pages:** 3

**Conveyance:** ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

**Assignors:** YAMADA, AIRI

**Exec Dt:** 08/29/2002

SUETSUGU, MASUMI

**Exec Dt:** 08/29/2002

UETANI, YASUNORI

**Exec Dt:** 08/29/2002

**Assignee:** SUMITOMO CHEMICAL COMPANY LIMITED

5-33, KITAHAMA 4-CHOME, CHUO-KU

OSAKA, JAPAN

**Correspondent:** BIRCH, STEWART, KOLASCH & BIRCH, LLP

RAYMOND C. STEWART

P.O. BOX 747

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Search Results as of: 7/23/2003 5:18:55 P.M.

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Web interface last modified: Oct. 5, 2002



## Patent Assignment Abstract of Title

### Total Assignments: 1

**Application #:** 10046742 **Filing Dt:** 01/17/2002 **Patent #:** NONE **Issue Dt:**  
**PCT #:** NONE **Publication #:** 20020147259 **Pub Dt:** 10/10/2002  
**Inventors:** Katsuhiko Namba, Junji Nakanishi, Yasunori Uetani  
**Title:** Chemical amplifying type positive resist composition

### Assignment: 1

**Reel/Frame:** 012496/0326 **Received:** 01/28/2002 **Recorded:** 01/17/2002 **Mailed:** 03/20/2002 **Pages:** 3

**Conveyance:** ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

**Assignors:** NAMBA, KATSUHIKO **Exec Dt:** 01/11/2002  
NAKANISHI, JUNJI **Exec Dt:** 01/11/2002  
UETANI, YASUNORI **Exec Dt:** 01/11/2002

**Assignee:** SUMITOMO CHEMICAL COMPANY, LIMITED  
 5-33, KITAHAMA 4-CHOME, CHUO-KU  
 OSAKA, JAPAN

**Correspondent:** BIRCH, STEWART, KOLASCH & BIRCH, LLP  
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Search Results as of: 7/23/2003 5:19:19 P.M.

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